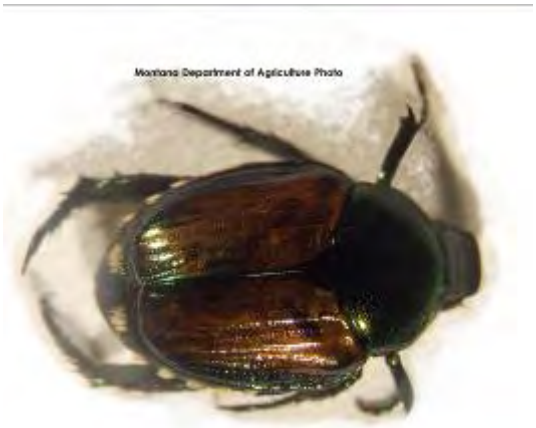
Japanese Beetle
Popillia japonica
State-wide Activities



Japanese beetle found in Billings, Montana. Montana Department of Agriculture photo.

Japanese beetle (JB) was first reported in Montana in 2001, in Billings. Ongoing trapping since then has yielded additional beetles, all in the vicinity of the Billings airport until 2007. The USDA APHIS PPQ conducts surveillance at the airports, while the Montana Department of Agriculture (MDA) conducts surveillance at selected high-risk nurseries and plant retailers. Traps placed as part of special efforts are not reported on in this narrative.

During 2007, the MDA trapped for JB at 73 locations in nine counties. Represented in these locations are nurseries, sod farms, and "big box" stores.

County	Number of Traps	Number of Positives
Broadwater	1	0
Cascade	19	0
Flathead	19	0
Gallatin	6	0
Jefferson	1	0
Missoula	12	0
Park	2	0
Ravalli	12	0
Sheridan	1	0
Total	73	0

No JB were found in any of these traps. In addition to placing the traps, MDA personnel also spoke with employees of the establishments, and in some cases, left literature regarding the beetle for distribution to the general public.

Status Report
Japanese Beetle Trapping
Lake County, Montana
August 2007

The trapping was initiated by the discovery of a beetle on a European Pine Shoot Moth trap from a location in Lake County, Montana. The location of the trap was 47.81198 N, 114.02048 W. This location corresponded to a tree just to the west of MT Hiway 35, on the lakeside of a pullout. The trap was located in a pine tree.

Trap location for European Pine Shoot Moth trap that was found with Japanese beetle in it. Note location of water and steep terrain.

The pullout is used by a wide variety of people, and is large enough to accommodate several cars and RVs at the same time. There are chokecherries and other minimally acceptable hosts in the area. In addition, there is a day-use area about 0.25 miles north of the pull-out, which is landscaped with a wide variety of roses. The trap location was not located near any commercial cherry orchards. This portion of the hiway is located less than 20 feet from the lake on the west side, and the slope on the east side is very steep. (In several areas, there are rock fall barriers on the east side).

Trapping began on Tuesday, 31 July 2007. Initial reconnaissance of the area by Patricia M. Denke (Entomologist, Montana Department of Agriculture) and Chris Helseth (Montana Department of Agriculture) allowed final planning to be done, taking into account terrain and unique elements of the area to determine endpoints and trap density.

Trapping area, with "Point 73" represented as a yellow dot, and the ends of the trapping area as black lines.

A strategy and instruction meeting was held at the Flathead Lake Inn in Polson Montana, beginning at 3:00 pm. In attendance were Patricia M. Denke, Chris Helseth, Dan Poff (Montana Department of Agriculture Field Inspector, District A), Dawn Bales (Montana Department of Agriculture Field Inspector), and Chris Herron (Montana Department of Agriculture Field Inspector District A-North).

The survey was planned to start at 7:00 am the morning of 1 August 2007. The north end of the survey was roughly the Yellow Bay area, the south end, the turnout for the Montana Pines RV Park. This is a distance of roughly 10 miles. Traps were to be placed within the area, primarily along the roads. Present were Patricia M. Denke, Chris Helseth, Dan Poff, and Dawn Bales. Two teams were formed- Denke & Helseth, Poff & Bales. The teams worked from a central point, the location where the beetle was found (referred to as "Point 73", after the number on the EPSM trap, throughout the survey). At noon, the two teams met, conferred, and exchanged information. The teams met again at the end of the day at the Glacier Fresh Cherry Packing Plant.

Each trap was labeled with two labels. One indicated that the trap was a Japanese Beetle trap, belonging to the Montana Department of Agriculture, with the trap number. The other had information about websites to get additional information regarding the beetles, and contact information for the Montana Department of Agriculture.

At the end of 1 August 2007, there were approximately 77 traps in place in the survey area.

On 2 August 2007, Patricia M. Denke, Chris Helseth, and Dawn Bales were immediately present. The teams put up a few traps, until the arrival of Sean Mulla in Polson with approximately 50 additional traps. Sean Mulla as a single person team was assigned to place

traps in Polson, particularly at nurseries and orchards. Dawn Bales continued as a single person team, working off the east side of the hiway. Denke and Helseth worked off the west side of the hiway. The general method at this point was to try to fill in any empty spots on the map on the GPS unit used by the team. At 1:00, the teams met for final status reports. Sean Mulla was given all remaining traps for additional placement or transfer to storage in Missoula

At the end of the delimitation placement, there were traps in nearly every pullout along Flathead Lake, as well as in most of the orchards.

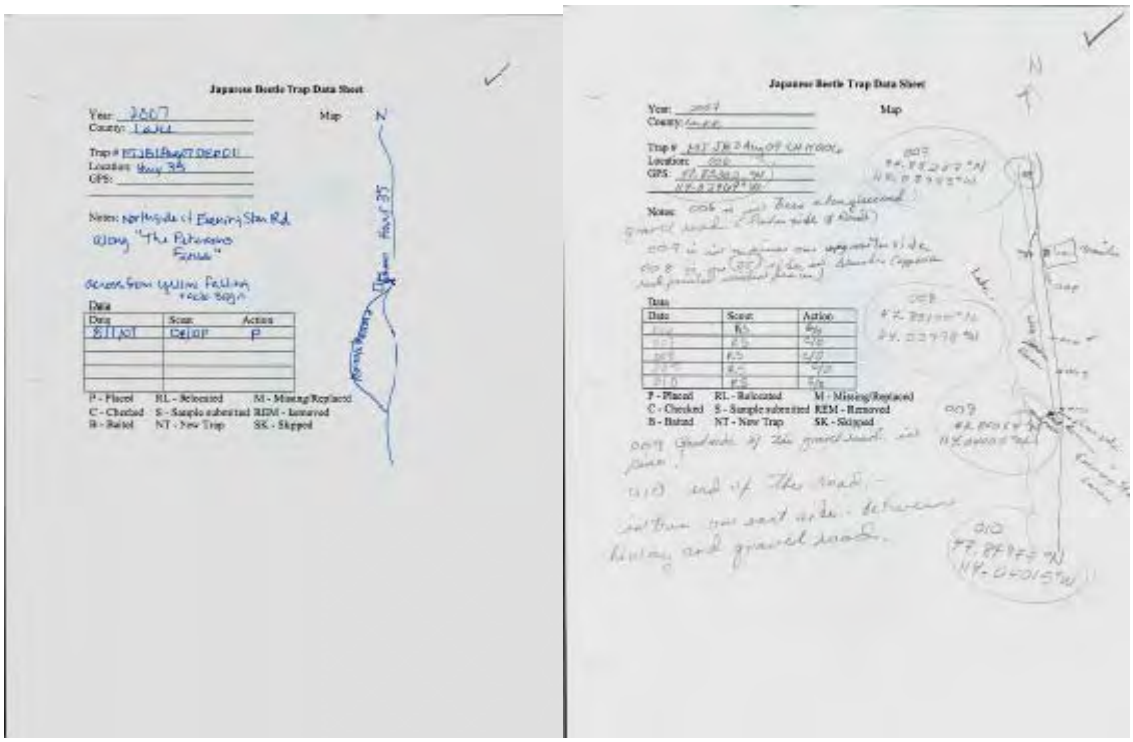
This survey was relatively intense, requiring a total of at least 45 hours in the field. During this time, the personnel on this assignment were unable to carry out their regular duties. Additional time was spent in Helena with preparation, as well as resolution. Checking the traps commenced next week, on 7 August 2007.

Hours spent by MDA personnel on Lake County delimitation survey. All reported hours here are minimum.

Name	Days	Hours (Set Up Survey)	Hours (Checking Traps)	Hours (Final)
Dawn Bales	1.5	12	-	12
Patricia M. Denke	3	24	10	34
Chris Helseth	2.5	20	-	20
Chris Herron	-	-	8	8
Sean Mulla	1	8	8	16
Dan Poff	1	8	-	8
Ryan Solberg	-	-	10	10
Total	9	45	36	81

Trap Status
7 August 2007

Checking of the traps was carried out by Patricia M. Denke, Entomologist, Montana Department of Agriculture, and Ryan Solberg, Field Specialist, Montana Department of Agriculture. Traps were located either through the use of maps generated the previous week during trap setting, or via GPS data recorded on the maps.



Maps showing location of Japanese beetle traps along Montana Hiway 35 in Western Montana, on the east side of Flathead Lake, during 2007.

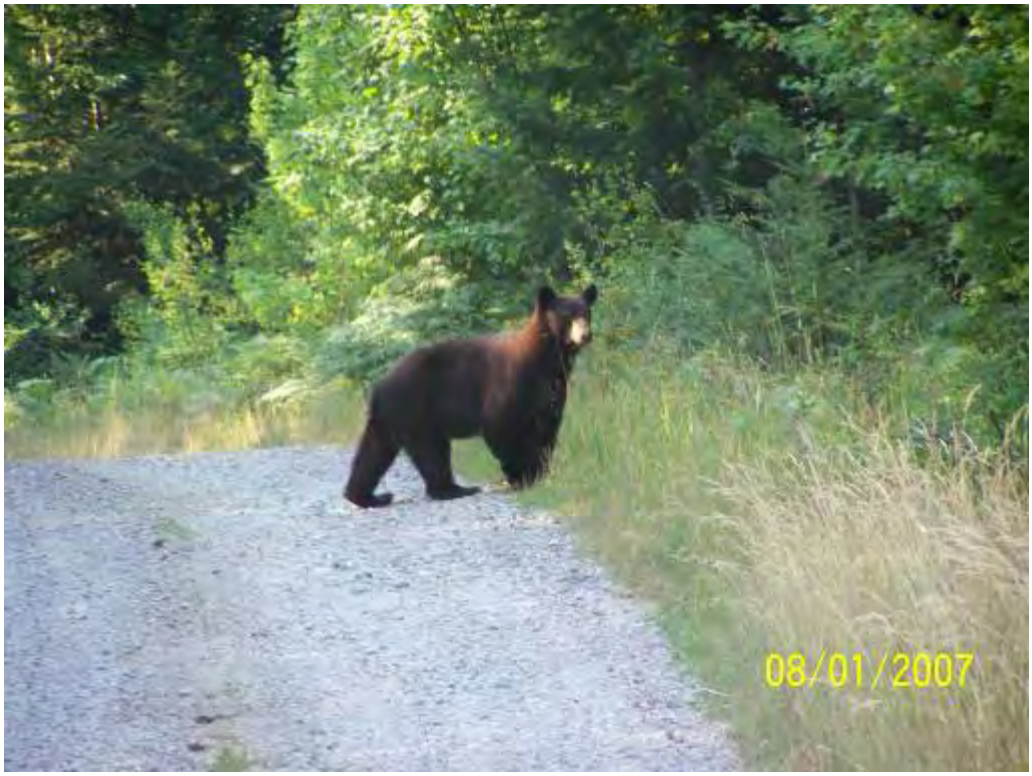
Traps in Kalispell set by Chris Herron (Montana Department of Agriculture, Field Specialist) were checked by Chris Herron. Traps set in Polson by Sean Mulla (Montana Department of Agriculture, Field Specialist) were checked by Sean Mulla. Total time spent checking traps was 10 hours by Denke and Solberg, 8 hours by Herron and 8 hours by Mulla for a total of 36 hours spent checking traps. No Japanese beetle suspects were found.

All traps were located.

Final Trap Status

All 81 traps were checked and removed in mid to late September. There were no additional JB collected in Lake County. Trap removal required more than 36 hours. The primary insects found in the traps were butterflies, wasps, and assorted bees.

Japanese beetle traps in the field during 2007, on the east side of Flathead Lake. Note steep terrain to the east of the trap in second photo.



Not a Japanese beetle.

Status Report
Japanese Beetle Trapping
Billings, Montana
2007

Over forty Japanese beetle (JB) were found in Billings, MT, in traps baited with both male sex pheromone and floral scent lures during 2005 during a delimiting survey. Treatment of turfgrass and other irrigated areas within a one-mile radius circle of land commenced that fall. All treatments were on a voluntary basis. Roughly half of the land within the circle is extremely dry (less than 6 inches of precipitation per year, primarily in the form of snow), and about half of that land is actually part of the "Rimrocks" proper, a series of sandstone cliffs ranging from 5 to over 50 feet high.

Looking north from Rocky Mountain College (west of Montana State University-Billings) at the Rimrocks. The trap in the foreground is roughly ¼ mile from the Rimrocks.

Within the circle there are about 650 properties. A large portion of this land is owned by Montana State University-Billings. Other major landowners include the City of Billings, and the airport, both of which were notified of the beetle finds, and appropriate courses of action. The airport added white grub control to their regular landscaping maintenance. At this time, the city was unable to include treatments of their land due to budget constraints. Due to budget constraints the Montana Department of Agriculture (MDA) was no longer able to monitor beetles. However, Billings homeowners in the area responded to a call for assistance, and over 100 homeowners obtained free JB traps and lures from the MDA and the USDA APHIS PPQ. A majority of these later reported the results of their efforts.

During 2006, fewer beetles were found in the area (29 total). The city was able to add treatment of their properties, which included a water holding facility surrounded by a large amount of lawn and irrigated landscaping as well as a park.

During the first year of treatments (fall 2005), the University treated only formal lawns and landscaping. They also volunteered to trap their facilities, and added traps when JB were found in traps. Due to the location of positive traps, during the fall of 2006 all University properties were treated with Merit WS 75, including a large number of rental properties. The University trapped the same locations in 2007 as they trapped in 2006. While some homeowners no longer participated in the survey, the essential area, on the north-west corner of the University property and in the area of Ryniker Drive, was still being trapped. This area has yielded over 90% of the JB collected in Billings in all the years it has been found there.

During 2007, there were 19 JB found on the University property and one additional beetle found on a nearby private property. All of these areas were treated for JB in the fall of 2007.

A "suspect" Japanese beetle from Billings, submitted to the Extension Service for confirmation. Amy Granpre photo.

Not all insects submitted as suspect JB were positive. In fact, some that very closely matched the description (green metallic and copper/metallic, with digging legs) were submitted.

The current program will continue, although community interest is waning. A community education campaign about not only insect pests (including JB, emerald ash borer, and mosquitoes) but also weeds and integrated pest management, is being tentatively planned for the spring of 2008.

Japanese Beetle Trapping
USDA APHIS PPQ
MONTANA AIRPORTS
2007

The USDA APHIS PPQ traps for Japanese beetles at selected high risk airports within the state. Based on airport size, and number of flights from infested areas, traps are placed around the perimeter of the airports, and in any landscaping that might increase risk of JB infestation.

During 2007, the USDA APHIS PPQ placed and monitored 66 traps at seven airports. These were Billings (29 traps), Bozeman (5 traps), Butte (5 traps), Great Falls (12 traps), Helena (5 traps), Missoula (6 traps), and Kalispell (4 traps).

There were no detections of JB during the 2007 season in traps monitored by the USDA APHIS PPQ.